

CX9240 | Embedded PC with Arm® Cortex®-A53

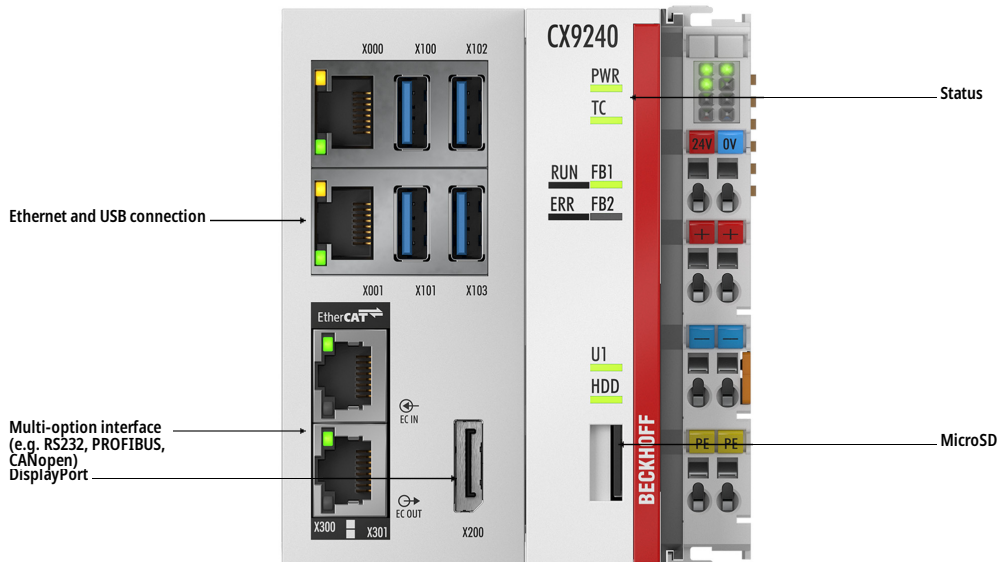


Image similar, may contain optional accessories

i Product status: regular delivery | estimated market release of the TwinCAT 3 runtime version from Q3 2025

The CX9240 Embedded PC is a compact, DIN rail-mountable Ethernet control system with a 1.2 GHz Arm® Cortex®-A53 CPU. It represents a further development of the existing CX9020 and relies on a faster CPU with four cores and a modern 64 bit architecture. The multi-core CPU allows PLC projects to be distributed to several cores for significantly enhanced performance.

The CX9240 features two independent 1 Gbit Ethernet interfaces, which enable significantly higher transfer rates compared to its predecessor. The main memory comprises 2 GB LPDDR4 RAM, which doubles the capacity of the compact controller and, together with the more modern CPU and the same low power consumption, opens up new application areas and possibilities for the CX9240.

The main features of the CX9240 device series include:

- high-performance 1.2 GHz Arm® Cortex®-A53 CPUs with four cores
- 2 GB LPDDR4 RAM
- two independent 1 Gbit Ethernet interfaces
- DisplayPort instead of DVI
- Beckhoff RT Linux®
- built-in capacitive 1-second UPS
- electrically isolated 24 V DC power supply

Further standard features of the CX9240 include four USB 3.0 interfaces, a DisplayPort, and a multi-option interface that can be flexibly assigned ex factory – for example, with a serial port or a fieldbus connection.

The boot and storage medium is an interchangeable, industry-standard microSD card, which can be accessed via a slot on the front of the housing. This is used to store not only the operating system, but also TwinCAT and user projects. Beckhoff RT Linux® is used as operating system.

The TwinCAT automation software transforms the CX9240 system into a high-performance PLC and motion control system that can be operated with or without visualization. Optionally, the unit can be ordered with a fieldbus or serial interface.

The connection for the Beckhoff I/O systems is directly integrated into the CPU module. The device offers automatic bus system identification (E-bus or K-bus) and switches to the corresponding mode. The extended operating temperature range between -25°C and +60°C allows it to be used even in climatically demanding situations.

Product information

Technical data

Technical data	CX9240
Processor	Arm® Cortex®-A53, 1.2 GHz
Number of cores	4
Flash memory	slot for microSD card, card not included (requires a microSD card with a minimum capacity of 16 GB)
Main memory	2 GB LPDDR4 RAM (not expandable)
1-second UPS	integrated (1 MB on microSD card)
Interfaces	2 x RJ45 10/100/1000 Mbit/s, 1 x DisplayPort, 4 x USB 3.0, 1 x optional interface
Cooling	passive
Diagnostics LED	1 x power, 1 x TC status, 1 x flash access, 2 x bus status
Clock	internal, capacitor-buffered real-time clock for time and date (storage capacity > 21 days)
Operating system	Beckhoff RT Linux®
Control software	TwinCAT 3 runtime (XAR) from TwinCAT 3.1 Build 4026 (XAE)
I/O connection	E-bus or K-bus, automatic recognition
Power supply	24 V DC (-15%/+20%), electrically isolated
Current supply E-bus/K-bus	2 A
Max. power consumption	7 W
Max. power consumption (with loading UPS)	12 W
Max. power consumption E-bus/K-bus	10 W (5 V/max. 2 A)
Weight	approx. 650 g
Dimensions (W x H x D)	84 mm x 100 mm x 91 mm
Relative humidity	95%, no condensation
Operating temperature	-25...+60°C
Storage temperature	-40...+85°C
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4

Protection rating	IP20
Approvals/markings	CE, UL
TwinCAT 3 platform level	Economy Plus (30); please see here for an overview of all the TwinCAT 3 platform level

Ordering information



Ordering information	
CX9240-0210	CPU module, Beckhoff RT Linux®, no TwinCAT
CX9240-0215	CPU module, Beckhoff RT Linux®, TwinCAT 3 runtime (XAR), no licenses included

TwinCAT 3 runtime (XAR) is preinstalled, without licenses. Please order TwinCAT 3 licenses separately from the TwinCAT 3 Price List.

Options

Optional interfaces	
CX9240-N030	RS232 interface, D-sub plug, 9-pin (RXD, TXD, RTS, CTS) (product announcement estimated market release 2 nd quarter 2025)
CX9240-N031	RS485 interface, D-sub socket, 9-pin, configuration as an end point, without echo, termination on (product announcement estimated market release 2 nd quarter 2025)
CX9240-N031-0001	RS485 interface, D-sub socket, 9-pin, configuration as an end point, with echo, termination on (product announcement estimated market release 2 nd quarter 2025)
CX9240-N031-0002	RS485 interface, D-sub socket, 9-pin, configuration as drop point, without echo, termination off (product announcement estimated market release 2 nd quarter 2025)
CX9240-N031-0003	RS485 interface, D-sub socket, 9-pin, configuration as drop point, with echo, termination off (product announcement estimated market release 2 nd quarter 2025)
CX9240-N031-0004	RS422 interface, D-sub socket, 9-pin, configuration as full duplex end point, termination on (product announcement estimated market release 2 nd quarter 2025)
CX9240-B110	EtherCAT slave interface, EtherCAT IN and OUT (2 x RJ45) (product announcement estimated market release 2 nd quarter 2025)
CX9240-M310	PROFIBUS master interface, D-sub socket, 9-pin (product announcement estimated market release 2 nd quarter 2025)
CX9240-B310	PROFIBUS slave interface, D-sub socket, 9-pin (product announcement estimated market release 2 nd quarter 2025)
CX9240-M510	CANopen master interface, D-sub plug, 9-pin (product announcement estimated market release 2 nd quarter 2025)

[CX9240-B510](#)

CANopen slave interface, D-sub plug, 9-pin (product announcement | estimated market release 2nd quarter 2025)

[CX9240-M910](#)

Ethernet (2 x RJ45 switch), expandable for real-time protocols, e.g. PROFINET, EtherNet/IP™, BACnet/IP (product announcement | estimated market release 2nd quarter 2025)

Accessories

Accessories

[CX1900-0132](#)

16 GB microSD card

[ZK1090-9191-0xxx](#)

RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin

[ZK1093-9191-0xxx](#)

RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin

[C9900-K530,-K552,-K553,-K554](#)

USB cable, shielded, PVC, 1 x 2 x 28AWG + 2C 20AWG, fixed installation, black, USB A, plug, straight, male, 4-pin – USB B, plug, straight, male, 4-pin

[C9900-K569,-K570,K577](#)

USB cable, shielded, PVC, 2 x 2 x AWG28 + 1 x 2 AWG28 + 1 x 2 x AWG24, fixed installation, black, USB A, plug, straight, male, 9-pin – USB B, plug, straight, male, 9-pin

[BZ1xxx](#)

100 contact labels, various colors, pre-printed

[BZ2xxx](#)

100 contact labels, various colors, blank